

**INDIVIDUAL RISK ASSESSMENT**

<b>Hazard/threat category</b>	<b>Sub-category</b>
Industrial accidents and environmental pollution	Major pollution of controlled waters
<b>Hazard and threat description, plus scale</b>	<b>Risk reference number</b>
Pollution incident impacting upon controlled waters, such as chemical spillage or release of untreated sewage, leading to persistent and/or extensive effect on water quality, major damage to aquatic ecosystems, closure of potable abstraction points, major impact on amenity use, serious impact on human health	HL4
<b>Author</b>	Environment Agency
<b>Version</b>	2
<b>Date of revision</b>	<b>Next review</b>
December 2007	December 2009

**1. Overview of hazard or threat**

Major pollution of controlled waters can occur as a result of a variety of occurrences including illegal activity, failure of control systems and accidents. Examples include a chemical spillage or release of untreated sewage.

Pollution of controlled waters can and has resulted in major impact on water quality and had an adverse effect on the flora and fauna in and around controlled waters.

**2. Key historical evidence**National events

There have been about 400 incidents of major pollution of controlled waters in England and Wales between 2003 and 2006.

Local events

Over the last 4 years the Environment Agency has investigated and responded to 45 incidents that caused a major environmental impact on controlled waters in the EA Thames Region (larger than the TVLRF). These incidents have led to and continue to have major impact on water quality and flora and fauna of controlled waters.

Incidents of this kind occur regularly and the likelihood of a major pollution of controlled waters occurring in the next 5 years is high (probable). Most major environmental incidents have a low/insignificant impact on the economy, human health and society.

### 3. Likelihood

Hazard	Outcome description	Likelihood
Major pollution of controlled waters	Pollution incident impacting upon controlled waters, such as chemical spillage or release of untreated sewage, leading to persistent and/or extensive effect on water quality, major damage to aquatic ecosystems, closure of potable abstraction points, major impact on amenity use, serious impact on human health	Probable (5)

### 4. Impact

#### Summary

Hazard	Outcome description	Impact				
		Health	Social	Env	Econ	Overall
Major pollution of controlled waters	Pollution incident impacting upon controlled waters, such as chemical spillage or release of untreated sewage, leading to persistent and/or extensive effect on water quality, major damage to aquatic ecosystems, closure of potable abstraction points, major impact on amenity use, serious impact on human health	2	3	5	2	3

Details

<b>Impacts</b>
<b>Primary</b>
Major impact on water quality
Major Impact on flora and fauna
Significant impact on Amenity
Closure of potable abstraction points
Major damage to agriculture and/or commerce (e.g. fish farms, crops, livestock)
Serious health impacts - public exposed to concentration levels giving rise to serious and known health risks.
<b>Secondary</b>
Long term impact on water quality
Long term impact on flora and fauna
Possible long term closure of potable groundwater abstraction points
Continued impact on amenity.
Clean up and remediation - possible long term clean-up works

**5. Vulnerability and resilience**

Major pollution of controlled waters is unfortunately a regular occurrence.

The Environment Agency is very experienced in dealing with such incidents and works closely with other agencies in responding to remediating and enforcing against such incidents.

## 6. Overall assessment

Category	Sub-category		
Industrial accidents and environmental pollution	Major pollution of controlled waters		
Outcome description	Impact	Likelihood	Risk
Pollution incident impacting upon controlled waters, such as chemical spillage or release of untreated sewage, leading to persistent and/or extensive effect on water quality, major damage to aquatic ecosystems, closure of potable abstraction points, major impact on amenity use, serious impact on human health	Moderate (3)	Probable (5)	High

**Controls in place**

- Environment Agency Incident Management Plans
- Environment Agency 24/7 incident response
- Environment Agency Memorandum of Understanding with Fire Brigades, Police, Local Authorities, Highways Agency, Health Protection Agency and Health Authority.
- Fire and Rescue Service supplied with pollution control equipment and an Environment Protection Unit
- BFRS OC 62/1/1, Chemical waste disposal
- Oxfordshire County Council Emergency Plan
- Milton Keynes Council Major Incident Guide
- Buckinghamshire County Council Emergency Plan
- Aylesbury Vale District Council Emergency Plan
- Chiltern District Council Emergency Plan
- South Bucks District Council Emergency Plan
- Wycombe District Council Emergency Plan
- Oxfordshire, Royal Berkshire and Two Shires Ambulance NHS Trusts Major Incident Plan
- West Berkshire Council – Major Incident Plan
- Royal Berkshire Hospital NHS Trust Major Incident Plan
- Heatherwood and Wexham Park Hospitals NHS Trust Major Incident Plan
- Berkshire Primary Care Organisations Major Incident Plan and Operational Response Manuals
- Berkshire Healthcare Trust Major Incident Plan
- Buckinghamshire Hospitals NHS Trust Major Incident Plan
- Milton Keynes Hospital NHS Trust Major Incident Plan
- Buckinghamshire Mental Health Trust Major Incident Plan
- Buckinghamshire Primary Care Organisations Major Incident Plan
- Oxford Radcliffe Hospitals NHS Trust Major Incident Plan
- Oxford Mental Health Trust Major Incident Plan
- Nuffield Orthopaedic Clinic Major Incident Plan
- Oxfordshire Primary Care Organisations Major Incident Plan
- Thames Valley Strategic Health Authority Major Incident Plan
- Berkshire Integrated Emergency Planning Structure
- Wokingham District Council Emergency Plan
- Reading Borough Council Emergency Plan
- West Berkshire Council Emergency Plan
- Bracknell Forest Borough Council Emergency Plan
- Royal Borough Council of Windsor and Maidenhead Emergency Plan
- Slough Borough Council Emergency Plan

**Additional risk treatment required**